

Bunker Hill
 AMD Mitigation Concepts
 2.2.1: Rehabilitate Phil Sheridan Diversion
 Order of Magnitude Cost Opinion

DATE: 06/13/2000
 PROJECT NO.: 152215.FS.02
 ESTIMATE BY: D. Hedglin
 T. Pyle

DESCRIPTION	QTY	UNIT	TOTAL UNIT COST	TOTAL COST	COMMENTS
Open Phil Sheridan Raises					
Site Access Road					
Grade & Improve Existing Road	200	LF	28.90	\$5,779	
Erosion & Sedimentation Control	1	LS	5,328.72	\$5,329	\$/LF allowance for ditches, culverts, silt fences, sed ponds, etc
Raise #1					
Open Up Raise #1	100	CY	107.69	\$10,769	
Sink 6' Casing from Surface to Rock Line	25	LF	228.92	\$5,723	
Prefabricated Steel Inlet Structure	1	LS	10,000.00	\$10,000	
Native Backfill Around Screen Structure	100	CY	17.23	\$1,723	
Place Riprap	100	CY	26.65	\$2,665	
Raise #2					
Open Up Raise #2	100	CY	107.69	\$10,769	
Sink 10' Casing from Surface to Rock Line	25	CY	2,500.00	\$62,500	
Native Backfill Around Screen Structure	100	CY	17.23	\$1,723	
Construct Screen Intake Structure	20	CY	500.90	\$10,018	
Screens for Inlet Structure	2	LS	10,659.98	\$21,320	
Regrade Stream	1	LS	10,338.05	\$10,338	
Place Riprap	100	CY	26.65	\$2,665	
Drift Construction					
Site Access Road					
Clear & Grub New Road for Access	150	LF	8.62	\$1,292	
Grade, Fill & Compact New Road	150	LF	76.32	\$11,449	\$/LF allowance for ditches, culverts, silt fences, sed ponds, etc
Base Course on New Road	56	CY	24.92	\$1,385	
Erosion & Sedimentation Control	1	LS	7,410.90	\$7,411	
Proposed Drift Construction					
Drift Advancement	300	LF	500.00	\$150,000	Based on costs provided by Bill Hudson
Access Road and Staging Area	1	LS	15,000.00	\$15,000	Based on costs provided by Bill Hudson
Diversion/Care of Water	1	LS	20,000.00	\$20,000	
Bulkhead/Bracing for new portal area	1	LS	25,000.00	\$25,000	
Concrete Collar with Steel Bulkhead Dam	8	CY	566.25	\$4,530	
HDPE Diversion Pipeline					
42" HDPE Pipeline in adit	300	LF	264.48	\$79,343	including supports & fittings
36" HDPE buried in Unimp Road	100	LF	241.71	\$24,171	including earthwork & fittings
Anchor Block	2	EA	4,061.89	\$8,124	asm 6cy & 5hrs to form, rebar, place
Cut-Off Trench Seepage Walls	1	EA	2,100.00	\$2,100	asm 7cy @ \$500/cy
Concentric Reducer 42" by 36"	1	EA	2,572.38	\$2,572	
SUBTOTAL				\$513,697	
MISC ALLOWANCE	10%			\$51,370	
SUBTOTAL				\$565,067	
CONTINGENCY	50%			\$282,534	
SUBTOTAL				\$847,601	
MOBILIZATION	15%			\$127,140	
CONSTRUCTION TOTAL				\$974,741	
SALES TAX ON MATERIALS	5.0%			\$1,710	
ENGINEERING AND SUPPORT	20%			\$194,948	
CONST MANAGEMENT	8%			\$77,979	
CAPITAL TOTAL (ROUNDED)				\$1,250,000	
ANNUAL O&M COST			\$18,200		
NPV OF ANNUAL O&M COSTS (30 YEARS @ 7% INTEREST)				\$226,000	
TOTAL 30-YEAR PRESENT WORTH COST @ 7% INTEREST				\$1,476,000	

NOTES:

Misc Allowance markup is to include items known to exist but cannot be quantified at this time.
 Contingency is for scope changes that are presently unforeseen.
 Mobilization includes bonds, insurance, temporary facilities, health & safety, demobilization, etc.